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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/137,907 08/21/98 WANG

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EXAMINER

TM02/0824

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ART UNIT

PAPER NUMBER

2184

DATE MAILED:

08/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/137,907

Applicant(s)

YI-MIN WANG

Examiner

Dau-Minh Le

Group Art Unit

2184

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE THREE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 10/29/98
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-16 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-16 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ ☐ Interview Summary, PTO-413
- ☒ Notice of References Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

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Part III DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable Woster et al. (U.S. Patent 5,892,946 hereafter referred to as Woster) in view of Moore et al. (U.S. Patent 6,189,046 hereafter referred to as Moore).

As per claim 1:

Woster explicitly teaches the invention. Woster teaches:

- a distributed component object model [abstract, fig. 2]

comprising:

- object instances [col. 6, lines 60-67];

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- enhance software fault tolerant [col. 6, line 60 through col. 7, line 45];
- client/server environment [fig. 10, col. 8, lines 43-64];
- client invoking first server object instances [col. 3, lines 48-62];
- client invoking second server object instance based on an error [col. 6, line 60 through col. 7, line 45];

Woster does not explicitly call out:

- a pool of server object.

However, Woster does disclose capability of:

- a plurality of distributed of nodes which have a plurality of processes which register a plurality of objects. The objects include client objects and server objects [col. 1, lines 48-60];
- a plurality of server objects [col. 10, lines 49 through col. 11, lines 19].

In addition, Moore does explicitly disclose:

- a computer system having plurality of objects in a distributed object environment [fig. 1, abstract, col. 43, lines 33-61];

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- client invoking objects [col. 44, lines 15-19];
- if fail (i.e., error occurred) invoking other objects [col. 44, lines 20-30].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize the Woster's distributed object management system having a fault tolerant capability within a client/server environment via invoking objects, a plurality of processes which register a plurality of objects including client objects and server objects as being the pool of server objects as claimed by Applicant. This is Woster's distributed object management system does deal with many or pool of objects since in a distributed environment, there is a need for lots of objects or server objects to ensure the system functions continuously in case of failure occurred; second, to modify the realize the Woster's distributed object management system having a fault tolerant capability within a client/server environment via invoking objects to explicitly further include a computer system capability having plurality of objects in a distributed object environment as taught by Moore in allowing the client/server to communicating effectively and more efficiently.

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This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the computer system, more specifically to the computer environment having a distributed plurality of objects with a mechanism to enhance the system operational (i.e., enhance system failure tolerant) via invoking different object instances. That is by utilizing this approach, the fault tolerant function within the distributed object environment system, the object communicated system can be able to detect fault, isolate fault, and correct fault via managing the plurality of object server. It is further obvious to realize that with the capability of invoking different object server via a plurality or a pool of object server, the system can be thoroughly managed in ensuring the entire distributed object system with free of errors, improving the performance, and reducing the risk of data loss.

As per claims 2:

Woster explicitly teaches the invention. Woster teaches:

- a distributed component object model [abstract, fig. 2] comprising:
 - object instances [col. 6, lines 60-67];
 - identify error by the first server by server object instance [col. 6, line 60 through col. 7, line 45];

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In addition, Woster also disclose capability of:

- enhance software fault tolerant [col. 6, line 60 through col. 7, line 45];
- client/server environment [fig. 10, col. 8, lines 43-64];
- client invoking first server object instances [col. 3, lines 48-62];
- client invoking second server object instance based on an error [col. 6, line 60 through col. 7, line 45];

Furthermore, Moore does explicitly disclose:

- a computer system having plurality of objects in a distributed object environment [fig. 1, abstract, col. 43, lines 33-61];
- client invoking objects [col. 44, lines 15-19];
- if fail (i.e., error occurred) invoking other objects [col. 44, lines 20-30].

As per claim 3:

Woster explicitly teaches the invention. Woster teaches:

- a distributed component object model [abstract, fig. 2] comprising:
 - object instances [col. 6, lines 60-67];

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- identify error by the first server by client [fig. 10 and 11, col. 6, line 60 through col. 7, line 45];
- enhance software fault tolerant [col. 6, line 60 through col. 7, line 45];
- client invoking first server object instances [col. 3, lines 48-62];
- client invoking second server object instance based on an error [col. 6, line 60 through col. 7, line 45];

Furthermore, Moore does explicitly disclose:

- a computer system having plurality of objects in a distributed object environment [fig. 1, abstract, col. 43, lines 33-61];
- client invoking objects [col. 44, lines 15-19];
- if fail (i.e., error occurred) invoking other objects [col. 44, lines 20-30].

As per claims 4-6:

Due to the similarity of claims 4-6 to claims 1-3 except for a system for enhanced software fault tolerant in a distributed component object (i.e., maintaining, invoking, client/server, etc...) instead of a method for enhanced software fault tolerant in a distributed component object (i.e., maintaining, invoking,

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client/server, etc...); therefore, these claims are also rejected under the same rationale applied against claims 1-3. **In addition, all of the limitations have been noted in the rejection as per claims 1-3.**

As per claim 7:

Woster explicitly teaches the invention. Woster teaches:

- a distributed component object model [abstract, fig. 2] comprising:
 - object instances [col. 6, lines 60-67];
 - enhance software fault tolerant [col. 6, line 60 through col. 7, line 45];
 - client/server environment [fig. 10, col. 8, lines 43-64];
 - client invoking first server object instances [col. 3, lines 48-62];
- desired reliability or availability of client (client invoking second server object instance based on an error) [col. 6, line 60 through col. 7, line 45];

Woster does not explicitly call out:

- N different server object from a pool.

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However, Woster does disclose capability of:

- a plurality of distributed of nodes which have a plurality of processes which register a plurality of objects. The objects include client objects and server objects [col. 1, lines 48-60];
- a plurality of server objects (i.e., N different server objects from a pool) [col. 10, lines 49 through col. 11, lines 19].

In addition, Moore does explicitly disclose:

- a computer system having plurality of objects in a distributed object environment [fig. 1, abstract, col. 43, lines 33-61];
- client invoking objects [col. 44, lines 15-19];
- if fail (i.e., error occurred) invoking other objects [col. 44, lines 20-30].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize the Woster's distributed object management system having a fault tolerant capability within a client/server environment via invoking objects, a plurality of processes which register a plurality of objects including client objects and

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server objects as being N different server object from a pool as claimed by Applicant. This is Woster's distributed object management system does deal with many or pool of objects since in a distributed environment, there is a need for lots of objects or server objects to ensure the system functions continuously in case of failure occurred; second, to modify the realize the Woster's distributed object management system having a fault tolerant capability within a client/server environment via invoking objects to explicitly further include a computer system capability having plurality of objects in a distributed object environment as taught by Moore in allowing the client/server to communicating effectively and more efficiently.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the computer system, more specifically to the computer environment having a distributed plurality of objects with a mechanism to enhance the system operational (i.e., enhance system failure tolerant) via invoking different object instances. That is by utilizing this approach, the fault tolerant function within the distributed object environment system, the object communicated system can be able to detect fault, isolate fault, and correct fault via managing the plurality of object server. It is further obvious to realize that with the capability of

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invoking different object server via a plurality or a pool of object server, the system can be thoroughly managed in ensuring the entire distributed object system with free of errors, improving the performance, and reducing the risk of data loss.

As per claims 8-11:

Woster explicitly teaches the invention. Woster teaches:

- a distributed component object model [abstract, fig. 2] comprising:
 - object instances [col. 6, lines 60-67];
 - identify error by the first server by server object instance [col. 6, line 60 through col. 7, line 45];

In addition, Woster also disclose capability of:

- enhance software fault tolerant [col. 6, line 60 through col. 7, line 45];
- client/server environment [fig. 10, col. 8, lines 43-64];
- client invoking first server object instances [col. 3, lines 48-62];
- a plurality of server objects (i.e., N different server objects from a pool) [col. 10, lines 49 through col. 11, lines 19].

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Furthermore, Moore does explicitly disclose:

- a computer system having plurality of objects in a distributed object environment [fig. 1, abstract, col. 43, lines 33-61];
- client invoking objects [col. 44, lines 15-19];
- if fail (i.e., error occurred) invoking other objects [col. 44, lines 20-30].

As per claims 12-13:

Due to the similarity of claims 7-11 to claims 12-13 except for a method for enhanced software fault tolerant in a distributed component object steps (i.e., maintaining, invoking, client/server, etc...) instead of a system for enhanced software fault tolerant in a distributed component object (i.e., maintaining, invoking, client/server, etc...); therefore, these claims are also rejected under the same rationale applied against claims 12-13. **In addition, all of the limitations have been noted in the rejection as per claims 12-13.**

7.7 As per claims 14, 15, 16:

First, these three claims 14, 15, and 16 are similar. The only minor different is that claim 14 calls out the server object

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instances produce an error while claim 15 calls out the client identifies error produced by server object instances as well as claim 16 introduces the same context. Applicant introduces claims in passive and active tense or phrase.

Second, Due to the similarity of claims 14-16 to claims 12-13 except for a method for enhanced software fault tolerant in a distributed component object steps (i.e., maintaining, invoking, client/server, etc...) instead of a system for enhanced software fault tolerant in a distributed component object (i.e., maintaining, invoking, client/server, etc...); therefore, these claims are also rejected under the same rationale applied against claims 12-13. **In addition, all of the limitations have been noted in the rejection as per claims 12-13.**

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
4. A shortened statutory period for response to this action is set to expired THREE (3) months, ZERO days from the date of this letter. Failure to respond within the

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period for response will cause the application to be abandoned. 35 U.S.C. 133.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (703) 305-9408. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel, can be reached on (703)305-9713. The fax phone number for this Group is (703) 305-3718.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 305-3718 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).



**DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2184**

DML
August 21, 2001